IN THE SPECIFICATION:

Please replace the paragraph beginning at page 14, line 19 with the following paragraph:

An implementation of an algorithm for optical wavelength tracking by control of the temperature of the multi-frequency light source 214 in the CO in the controller 234 is shown in steps 300 to 320 of FIG. 3. As the optical wavelength tracking according to the present invention is initiated, the controller 234 measures the reference voltage and the monitoring voltage in step 300. For notational simplicity, the reference voltage is denoted by V1 and the monitoring voltage, by V2 in FIG. 3. In step 302, the controller 234 stores the absolute difference between V1 and V2, $|V1 - V2|$ as the ~~present~~ <u>previous</u> voltage difference. The controller 234 increases the temperature of the multi-frequency light source 214 by a predetermined temperature variation ΔT in step 304.

Please replace the paragraph beginning at page 15, line 21 with the following paragraph:

If the present voltage difference exceeds Vr in step 312, the controller 234 compares the present voltage difference with the ~~present~~ <u>previous</u> voltage difference in step 314. If

the present voltage difference is equal to or greater than the ~~present~~ <u>previous</u> voltage

difference, this difference implies that the WDM wavelengths of the multi-frequency light

source 214 are more discrepant from those of the WDM MUX/DEMUX 238. Therefore,

the controller 234 increases or decreases the temperature of the multi-frequency light

source 214 by ΔT, by a value that is contrary to the present temperature change, in step

316. That is, if the temperature of the multi-frequency light source 214 was increased by

ΔT, it is decreased by ΔT at this time, and vice versa.

Please replace the paragraph beginning at page 16, line 6 with the following

paragraph:

On the other hand, if the present voltage difference is less than the **~~present~~**

~~previous~~ voltage difference, this difference implies that the WDM wavelengths of the

multi-frequency light source 214 are not significantly different from those of the WDM

MUX/DEMUX 238. Therefore, the controller 234 increases or decreases the temperature of

the multi-frequency light source 214 by ΔT, in the same manner as the previous

temperature change, in step 318. That is, if the temperature of the multi-frequency light

source 214 was increased by ΔT, it is also increased by ΔT at this time. If the temperature

of the multi-frequency light source 214 was decreased by ΔT, it is also decreased by ΔT at

this time.

Please replace the paragraph beginning at page 16, line 15 with the following

paragraph:

After step 316 or 318, the controller 234 stores the present voltage difference as the

~~present~~ **previous** voltage difference in step 320 and returns to step 306.